

Application No.: 10/068,277

Docket No.: JCLA8620

In The Claims:

Claim 1. (currently amended) An electrolytic cell for ozone generation, comprising:
two grid electrodes immersed in an electrolyte, the two grid electrodes being powered by a DC power source continuously or intermittently, wherein the DC power source comprises an oscillator containing a circuitry comprising a power circuit, a switching circuit and self-excited multi-level oscillation circuit;

the electrolyte comprises at least one neutral salt;

a first electrode of the two grid electrodes is an anode, wherein a material of the anode comprises titanium coated with another material selected from the group consisting of platinum, iridium oxide and tin oxide, and a layer of β -PbO₂ is coated on the anode, and

a second electrode of the two grid electrodes is a cathode, wherein a material of the cathode comprises titanium coated with another material selected from the group consisting of platinum iridium oxide and tin oxide.

Claims 2-5 (canceled)

Claim 6. (original) An electrolytic cell for ozone generation of claim 1, wherein the neutral salt comprises at least one salt selected from the group consisting of NaCl, KCl, NaNO₃, and KNO₃.

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Claim 7. (original). An electrolytic cell for ozone generation of claim 1, wherein the DC power source comprises a battery.

Claim 8. (original). An electrolytic cell for ozone generation of claim 7, wherein the battery is selected from a group consisting of dry battery, lead-acid battery, nickel-cadmium battery, nickel-hydrogen battery, lithium ion battery, lithium polymer battery, metal-air battery, fuel cell, and solar cell.

Claim 9. (currently amended). An electrolytic cell for ozone generation of claim 1, wherein the DC power source further comprises ~~a circuitry consisting of a battery, and a supercapacitor, and an oscillator containing a circuitry comprising a power circuit, a switching circuit and self-excited multi-level oscillation circuit.~~

Claim 10. (original). An electrolytic cell for ozone generation of claim 9, wherein the battery is selected from a group consisting of dry battery, lead-acid battery, nickel-cadmium battery, nickel-hydrogen battery, lithium ion battery, lithium polymer battery, metal-air battery, fuel cell, and solar cell.

Claim 11. (original). An electrolytic cell for ozone generation of claim 9, wherein the oscillator comprises a self-excitation multi-level oscillator.

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Claim 12. (original). An electrolytic cell for ozone generation of claim 9, wherein a yield of ozone generation is controlled by varying a duty ratio of the circuitry of the DC power source.

Claim 13. (original). An electrolytic cell for ozone generation of claim 1, further comprising a bubbler for supplying bubbles into the electrolyte.

Claim 14. (original). An electrolytic cell for ozone generation of claim 1, which has a temperature including room temperature.

Claim 15. (previously presented). An electrolytic cell for ozone generation of claim 1, wherein the current used in the electrolytic cell is between 0.28-3.10 A.

Claim 16. (previously presented). An electrolytic cell for ozone generation of claim 9, further comprising a bubbler for supplying bubbles into the electrolyte.